CLAIMS

What is claimed is:

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1. A process for preparing silica microcapsules comprising the steps of: preparing a precursor solution containing a compound of formula (1) by adding tetraethyl orthosilicate in an aqueous solution containing a hydrolysis catalyst;

adding a core material and aminopropyltriepoxysilane into the precursor solution; and

emulsifying and dispersing the resulting solution into a solution having a polarity opposite to that of the core material to perform a sol-gel reaction at the interface thus impregnating the core material,

(OH)_{3-x}(RO)_x-Si-O-[Si-O-Si]_n-Si-(RO)_x(OH)_{3-x} (1) wherein R is a
$$C_1$$
 to C_{10} alkyl group, x is 1, 2 or 3, and n is an integer of 100 to 1,200.

- 2. The process for preparing silica microcapsules according to Claim 1, wherein said tetraethyl orthosilicate is used in the range of from 0.3 to 3.0 equivalence ratio with reference to that of the hydrolysis catalyst.
- 3. The process for preparing silica microcapsules according to Claim 1, wherein said core material is selected from the group consisting of lipophilic or hydrophilic organic materials, and inorganic materials.
- 4. A process for preparing silica microspheres having a hollow inside by the heat treatment of the silica microcapsules where the organic material prepared according to Claim 1 is impregnated.

- 5. A coating agent containing the silica microcapsules prepared according to Claim 1.
- 6. Silica microcapsules for UV protection material wherein an organic UV absorbing agent or a UV insulating agent is impregnated as a core material, prepared according to Claim 1.